Scheduling in the AG

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Why the need to schedule?

- Virtual Venues
- Physical spaces
- Global participants
- Staff required to drive node

Use cases

- Create a meeting
- Confirm Participation
- Reserve a Virtual Venue
- Reserve a Node
- Create agenda
- Distribute Information

Scheduling in AG 1.x

- NCSA's AGSchedule
  - http://agschedule.ncsa.uiuc.edu
  - Over 80 locations, ~300 users registered
- Automatically assigns a venue
- Handles local room reservations
- Adjusts for local time zones

Drawbacks with AGSchedule

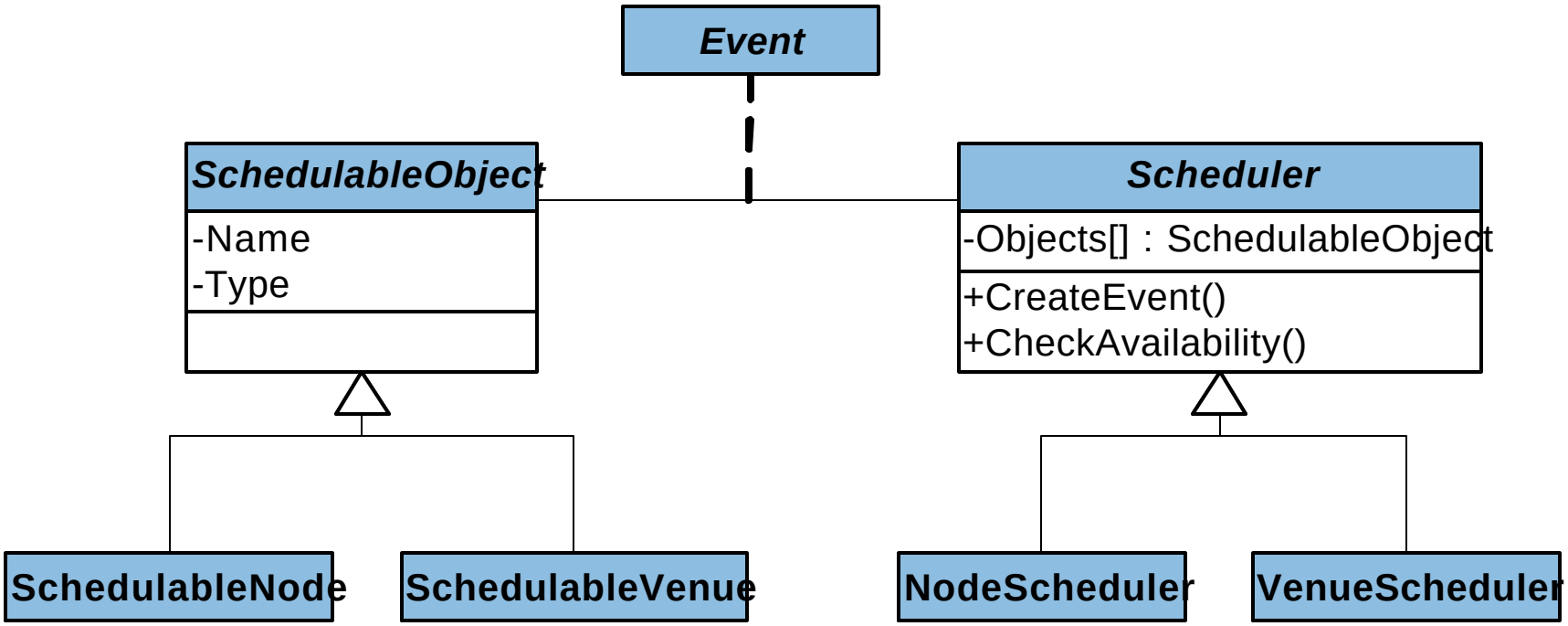
- Centralized website
  - Requires proprietary (expensive) software
  - Doesn’t fit the Grid Computing model
- Loosely coupled with Venue Server

Scheduling Goals in AG 2.0

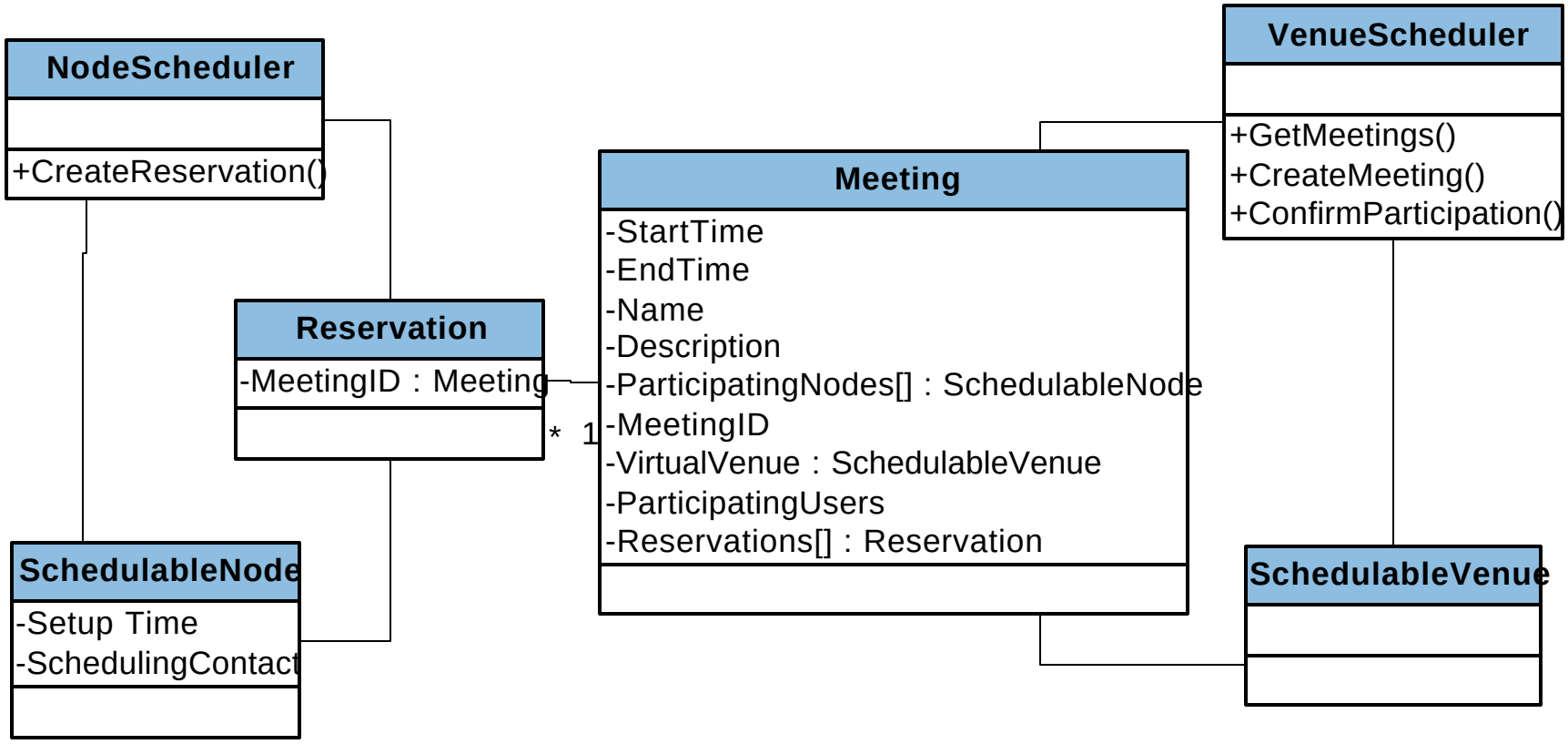
- Interfaces directly with AG 2.0 services
  - Sets ACL, manages data
- Distributed architecture
  - Each site runs their own scheduling services
- Explore general idea of collaborative resource scheduling on the Grid
  - CAVE, Tiled Display Wall, etc.
  - ACE Research Group

Abstracted Classes

- Schedulable Object
- Scheduler



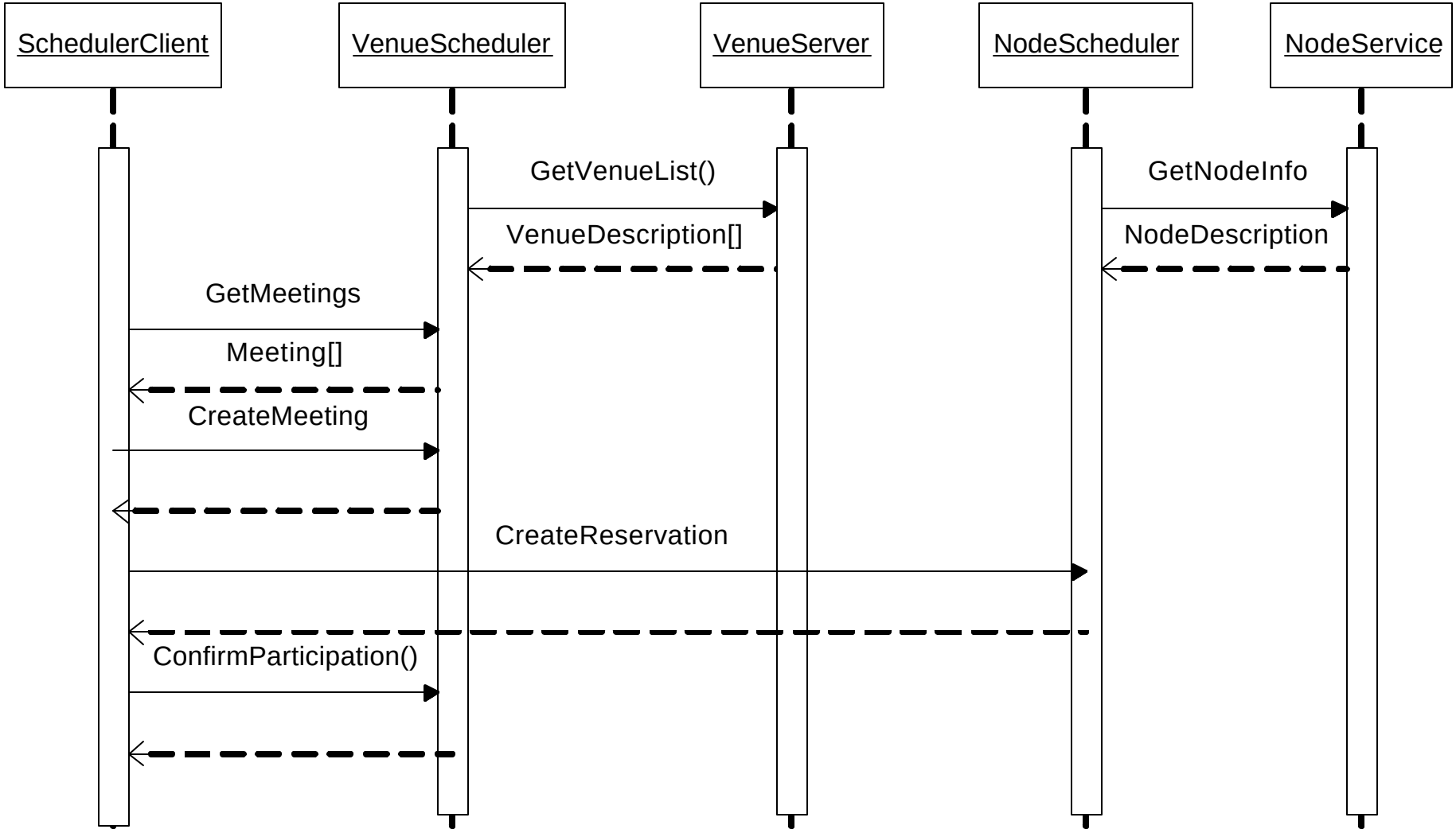
Class Diagram



Interactions with AG 2.0 Services

- Automatic binding to Venues by talking to Venues Server
- Binding to Node by talking to Node Service
- Manipulate Venues
- Utilizing Venue Data Store

Sequence Diagram



Possibilities with AG 2.0

- Associate ACL with Meetings
- Automate Startup process
- Control Voyager – automatically record scheduled meetings
- Automatically submit jobs to the Grid, so that data is ready for analysis in a meeting.
- Apply scheduling architecture to other collaborative resources